Project Fabrication and Characterization of Nanoelectronic Devices and Circuits

Owner Jan-David Fischbach Start Date Page

1/2 **Revised Date**





June



run sheet

Nr.	Description	Tool	Operator	Date	Duration	Parameters
1.	start material					1.5 cm×1.5 cm SOI sample pieces diced from 12" SOI wafer,
						SOI samples (top-Si=85 nm, BOX=145 nm, (100)-oriented, ρ =13.5-22.5 Ω ·cm, doping con-
						centration (Boron)=1e15 atoms/cm³)
						bulk-Si samples (thickness 625 μ m, (100)-oriented, ρ =15-25 Ω ·cm, doping concentration
						(Boron)=1e15 atoms/cm ³)
2.	RCA clean	CMNT R001	B. Sun	01.04.2019	120:00 min	piranha solution: $150 \text{ml} H_2 SO_4 + 50 \text{ml} H_2 O_2$, 10min
						DI water rinse 10 min
						1% HF till surface is hydrophobic
						DI water rinse 10 min
						SC-1: $125 \text{ ml H}_2\text{O} + 25 \text{ ml NH}_4\text{OH} + 25 \text{ ml H}_2\text{O}_2$: 10 min
						DI water rinse 10 min
						1% HF till surface is hydrophobic
						DI water rinse 10 min
						SC-2: $150 \text{ ml H}_2\text{O} + 25 \text{ ml HCl} + 25 \text{ ml H}_2\text{O}_2$: 10 min
						DI water rinse 10 min
3.	Description	Tool	Operator	Date	Duration	Parameters

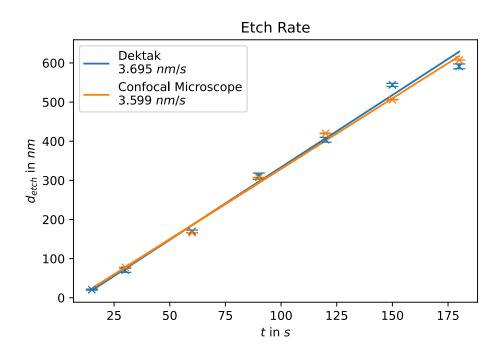


Figure 1: Estimation of the etch rate from dektak and confocal microscope measurements